

REMARKS

This is in response to the Office Action dated August 24, 2007.

I. SUMMARY OF OFFICE ACTION

In the Office Action, the Examiner has rejected claims 24-29, 32, 33, 35 and 36 under 35 U.S.C. § 102(b) based on the view that the claims are fully anticipated by U.S. Patent No. 5,491,418 to Alfaro et al.

Claims 30, 31, and 34 are rejected under 35 U.S.C. § 103(a) based on the view that the claims are unpatentable over Alfaro et al., in view of EPA420-R-00-017 by Mitcham et al.

II. APPLICANT'S RESPONSE

Claims 24 & 32

In the Office Action, Claims 24 and 32 were rejected under 35 U.S.C. § 102(b) based on the view that the claim is anticipated by Alfaro et al. To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently.” *MEHL/Biophile Int'l. Corp. v. Milgram*, 192 F.3d 1362 (Fed. Cir. 1999).

In response to the Office Action, Applicant has amended independent Claims 24 and 32. Claim 24 now recites, “the protocol specific connector having a plurality of pins with a jumper connected between two of the pins... the at least one communication protocol being identified based upon identification of the two pins having a jumper connected therebetween.” This feature of the present invention contemplates identifying at least one communications protocol by determining the connectivity between two pins selected from the plurality of pins within the connector. In a preferred embodiment, Applicant contemplates identifying at least one communication protocol associated with the vehicle under test by testing whether there is a current flow (complete circuit) between any two pins located within the connector. Support for this feature is found in Applicant’s specification “...the diagnostic device 2 is capable of performing a test on any cable 4 or 33 which may or

may not have a jumper 30 installed between two discretionary pins 34 the significance of which is indicative of a communications protocol.” (Specification, Para. 0046). This feature is advantageous because the protocol specific connector may include the same number of connector pins for any vehicle to be tested; there is no requirement for looking up a voltage value at a lookup table to determine the communications protocol. Further, Applicant’s invention has the freedom of selecting any two pins from the plurality of pins to determine connectivity and therefore identify a communications protocol.

According to the Examiner, “the step of identifying physical features of the connector includes identifying the connector connectivity configuration and identifying the connector pin configuration on lines 40-50, on column 3, and lines 24-28, on column 3.” (Office Action, Page 2). However, column 3, lines 24-28, as understood by Applicant, merely suggests that the number of connector pins and their configurations may vary from adapter to adapter. Lines 40-50 disclose conducting electrical signals between the pins or slots of the front and rear connector portions. The Alfaro et al. reference does not appear to support, teach, or disclose identifying the communications protocol based upon identifying two pins having a jumper connected therebetween selected from the plurality of pins located within the protocol specific connector. Alfaro et al. teaches identifying vehicle information by measuring the voltage across the circuit element and looking the voltage up at a lookup table. Alfaro et al. also teaches that every adapter may have a different voltage value across the circuit element. Thus, the reference does not teach the advantageous feature of identifying a communications protocol based exclusively upon identifying a short between any two selected pins from the plurality of pins within the protocol specific connector.

Alfaro et al. discloses “the diagnostic tool may read the value of the element by examining information at the same two input pins of the male Burndy type connector of the diagnostic tool. For any variety of devices or vehicles to which diagnostic tool may be attached to carry out diagnostic operations, the same two pins of the diagnostic connector may thus be examined to determine important information about the type of device or vehicle that is being diagnosed. (Col. 4, Lines 8-16). According to this disclosure, the diagnostic device examines the **same two pins** of the diagnostic connector in order to determine important information about the device. Additionally, Alfaro et al. discloses “when a

different adapter having a circuit element with a different value is connected to connector portion of the diagnostic tool, a different voltage will appear... different identification information will be referenced from the lookup table in response to the different voltage and different operations will result.” (Col. 5, Lines 7-14). Therefore, diagnostic connector is not based upon identifying two pins that are jumped from the plurality of pins within the protocol specific connector. The Alfaro et al. reference does not disclose checking connectivity between pins to identify a communications protocol. Applicant’s invention contemplates determining communications protocol information by testing two selected pins for a current or closed circuit within the connector. Applicant’s invention thus is likely to be more cost efficient, requires less memory, and is simpler to use.

The feature taught in Applicant’s invention in regards to the cable physical features being unrelated to vehicle information other than identification of the at least one communication protocol, is not suggested or disclosed in the Alfaro et al. reference. As previously noted, the adaptor used in the Alfaro et al. reference is a vehicle specific connection adaptor (column 1, lines 58-61). As understood, the flow of operations implemented under the Alfaro disclosure attempts to identify the vehicle under test for deriving appropriate configuration data (column 8, lines 8-10; column 8, lines 26-34). The method and device disclosed in Applicant’s invention does not identify vehicle information other than the communication protocol(s). This feature simplifies the invention and requires less memory resulting in a more user friendly product. As such, the Alfaro et al. reference would be expected to incorporate more features capable of processing the various flow of operations and thus requiring greater memory and potentially more adaptors. Applicant’s invention avoids the need for such vehicle specific connectors and the additional memory necessary to support vehicle specific adaptors.

In view of the foregoing Applicants claimed invention is believed to be distinguishable over the cited art, and recites an instruction that is advantageously more simple and efficient to use.

Reconsideration of the rejection of the claims is therefore respectfully requested.

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Response to Office Action of 08/24/07
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Should the Examiner have any suggestions for expediting allowance of the claims he is invited to contact Applicant's representative at the telephone number listed below.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

Date: Nov 8, 2007 By:

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